PATENT COOPERATION TREATY

PCT

TRANSLATION INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P803330/WO/1	FOR FURTHER ACTION	See Form PCT/IPEA/416					
International application No.	International filing date (day/month/	vear) Priority date (day/month/year)					
PCT/DE2004/001872	24.08.2004	22.09.2003					
International Patent Classification (IPC) or nati	onal classification and IPC						
B22F7/06 B22F5/04 B22	2F3/10						
Applicant	_						
MTU AERO ENGINES GMB	1						
-	1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.						
2. This REPORT consists of a total of _	4 sheets	, including this cover sheet.					
This report is also accompanied by A	NNEXES, comprising:						
a. (sent to the applicant and	to the International Bureau) a total of	1 sheets, as follows:					
		ave been amended and are the basis for this report and/or					
sheets containing red Instructions).	ctifications authorized by this Authori	ty (see Rule 70.16 and Section 607 of the Administrative					
1 1 1		nority considers contain an amendment that goes beyond					
the disclosure in the Box.	international application as filed, as	indicated in item 4 of Box No. I and the Supplemental					
b. (sent to the International i	Bureau only) a total of (indicate type a	nd number of electronic carrier(s))					
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related thereto, in computer	readable form only, as indicated in t	, containing a sequence listing and/or tables he Supplemental Box Relating to Sequence Listing (see					
Section 802 of the Administ	· · · · · · · · · · · · · · · · · · ·						
4. This report contains indications relation	ng to the following items:						
Box No. I Basis of the	report						
Box No. II Priority							
Box No. III Non-establic	shment of opinion with regard to nove	lty, inventive step and industrial applicability					
Box No. IV Lack of unit	y of invention						
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Box No. VII Certain defe							
Box No. VIII Certain obse							
Date of submission of the demand	Date of compl	mon or this report					
Name and mailing address of the IPEA/EP	Authorized of	Authorized officer					
	71441011204 011						
Facsimile No.	Telephone No.						

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/DE2004/001872

Box	No. I	I Basis of the report				
1.		h regard to the language, this report is based on the internatio cated under this item.	nal application in the language in	which it was filed, unless otherwise		
		This report is based on translations from the original langua which is the language of a translation furnished for the purp international search (Rule 12.3 and 23.1(b)) publication of the international application (Rule 12.4 international preliminary examination (Rule 55.2 and	oses of:	,		
2.	rece	th regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the reiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to s report): the international application as originally filed/furnished the description:				
		pages 1-9 pages*		as originally filed/furnished		
		pages*	received by this Authority on			
	\boxtimes	the claims:				
		nos.		as originally filed/furnished		
		nos.*	as amended (togethe	r with any statement) under Article 19		
		nos.* 1-5		23.07.2005 with letter		
		nos.*				
	\boxtimes	the drawings:				
		sheets 1/2-2/2		as originally filed/furnished		
		sheets*				
		sheets*				
		a sequence listing and/or any related table(s) – see Supplem		_		
3.		The amendments have resulted in the cancellation of:				
		the description, pages				
		the claims, nos.				
			7			
		the sequence listing (specify):				
4.		This report has been established as if (some of) the amend they have been considered to go beyond the disclosure as fi	lments annexed to this report and	listed below had not been made, since		
		the description, pages				
		the claims, nos.				
		the drawings, sheets/figs				
		the sequence listing (specify):				
		any table(s) related to sequence listing (specify):				
*	If ite	em 4 applies, some or all of those sheets may be marked "sup	erseded."			

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/DE2004/001872

Вох	Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement				
1.	Statement				
	Novelty (N)	Claims _ 1-5	YES		
		Claims	_ NO		
	Inventive step (IS)	Claims 1-5	YES		
		Claims			
	Industrial applicabi				
	11	lity (IA) Claims 1-5 Claims			
			<u> </u>		
2.	2. Citations and explanations (Rule 70.7)				
	1.	This report makes reference to the following			
		document:			
		D3: US 4 813 823 A			
	2.	D3 discloses a method for producing			
		components (drilling tools) by metallurgical			
		injection molding, wherein:			
		 two molded bodies are produced from powder 			
		and binding agent mixtures (column 5, lines			
		13-17 and $34-36$),			
		 each molded body is subsequently 			
		compressed or shrunken by sintering to form a			
		component having desired geometric			
		characteristics (column 5, lines 41-45),			
		 each molded body is subject to a debinding 			
		process by heating to sintering temperature,			
		- in order to produce the component, two			
		molded bodies are joined to each other during			
		sintering through a diffusion process (column			
		5, line 45) in that the surfaces of the			
		sections of the molded bodies to be joined are			
		brought into contact during sintering (column			
		5, line 3,3), pressure being applied during			

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

sintering to the molded bodies to be joined (column 5, lines 37-40; column 6, lines 4-20).

Therefore, the subject matter of claim 1 differs from D3 in that claim 1 relates to a powder metallurgical method for producing components of a gas turbine. Furthermore, D3 explicitly does not disclose any debinding process, but a certain degree of debinding takes place necessarily in the course of heating to sintering temperature.

Therefore, the subject matter of claim 1 is novel (PCT Article 33(2)).

3. Neither D3 nor any of the other documents cited in the search report contains anything that would prompt a person skilled in the art to use the method known from D3 in the production of gas turbine components, since drilling tools are made of materials not normally found in gas turbines.

Consequently, the subject matter of claim 1 involves an inventive step (PCT Article 33(3)).

4. Claims 2-5 are are dependent on claim 1 and therefore likewise meet the PCT requirements for novelty and inventive step.